

IN THE CLAIMS

1. (Currently amended) An exposure control method in a lithography system having a resist coating and developing apparatus, a wafer transferring mechanism, and an exposure control apparatus, comprising:

transmitting ~~resist film~~ temperature data of soft baking temperature, post baking temperature and hard baking temperature from the resist coating and developing apparatus to the exposure control apparatus, when baking processes are each performed;

determining a resist film exposure time responsive to the ~~resist film~~ temperature data; and

exposing the resist film to a light source for the determined resist film exposure time, wherein the resist film temperature data as initially calculated are replaced with practically measured temperature data when the baking processes are performed to adjust the exposure time.

2. (Previously presented) The method as claimed in claim 1, wherein the resist film temperature data is provided from temperature sensors disposed in the resist coating and developing apparatus.

3. (Previously presented) The method as claimed in claim 1, wherein the resist film temperature data is provided for a soft bake, a post exposure bake, and a hard bake of the resist film.

4. (Previously presented) The method as claimed in claim 1, wherein determining the resist film exposure time comprises analyzing the received temperature data and an error value in a pattern size.

5. (Previously presented) An exposure control apparatus in a lithography system having a resist coating and developing apparatus and a wafer transferring mechanism, comprising:

a receiver configured to receive resist film heat treating temperature data from the resist coating and developing apparatus;

an optical system configured to expose at least a portion of the resist film to a light source; and

an optical system controller adapted to determine and control a resist film exposure time responsive to the resist film heat treating temperature data received from the resist coating and developing apparatus.

6. (Previously presented) The apparatus as claimed in claim 5, wherein the resist film heat treating temperature data is provided from temperature sensors disposed in the resist coating and developing apparatus.

7. (Previously presented) The apparatus as claimed in claim 5, wherein the resist film heat treating temperature data is for a soft bake, a post exposure bake and a hard bake of the resist.

8. (Previously presented) The apparatus as claimed in claim 5, wherein the optical system controller is further adapted to analyze the resist film heat treating temperature data and an error value in a pattern size.

9. (Previously presented) A lithography system comprising:
a resist coating and developing apparatus including at least one resist film temperature sensor;
a wafer transferring mechanism; and
an exposure control apparatus including a receiver configured to receive resist film temperature data from the resist coating and developing apparatus, an optical system configured to expose the resist film to a light source, and a controller configured to control the optical system and configured to determine and control a resist film exposure time responsive to the resist film temperature data.

10. (Previously presented) The system as claimed in claim 9, wherein the resist film temperature data is provided for a soft bake, a post exposure bake, and a hard bake of the resist.

11. (Previously presented) The system as claimed in claim 9, wherein the controller is also configured to determine the resist film exposure time responsive to the received resist film temperature data and an error value in a pattern.